

- 010

308 Building/2A  
November 15, 2002



Document Processing Desk - 6(a)(2)  
Office of Pesticide Programs - 7504C  
U.S. Environmental Protection Agency  
Ariel Rios Building  
1200 Pennsylvania Avenue, NW  
Washington, DC 20460-0001

RE: FIFRA § 6(a)(2) Report  
Vikane® Gas Fumigant  
EPA Registration Number: 62719-4  
Active Ingredient: Sulfuryl Fluoride  
CAS Registry Number: 002699-79-8  
DERBI Number: 105579  
State: CA  
Severity Category: H-C

Dow AgroSciences submits the following information in response to its understanding of the U.S. Environmental Protection Agency's interpretation of FIFRA § 6(a)(2). However, Dow AgroSciences has not concluded that this information regards an "unreasonable adverse effect on the environment" or that it is reportable under FIFRA § 6(a)(2).

Dow AgroSciences received the enclosed information regarding alleged human exposure.

It is important to note that the Vikane Gas Fumigant label requires the introduction of chloropicrin to the structure prior to fumigation at a rate of one ounce per 10,000-15,000 feet (17-25 ppm) to serve as a warning agent. This warning agent causes smarting of eyes, tearing, throat and nose irritation, and a disagreeable pungent odor at very low concentrations (ca. 0.3 ppm).

The Vikane Gas Fumigant label states the following: "When fumigating, observe local, state and federal rules and regulations including such things as use of chloropicrin, clearing devices, positive-pressure self contained breathing apparatus, security requirements, and placement of warning signs:... Extremely Hazardous Liquid and Vapor Under Pressure, Inhalation of Vapors may be Fatal." Under the "Preparation for Fumigation" section of the label, the use directions for structural fumigation state "Remove from the structure to be fumigated all persons, domestic animals, pets - including fish and desirable growing plants." Also, under the Aeration and Reentry section of the label, use directions state "... treated area must be aerated until the level of sulfuryl fluoride is 5 ppm or less, as measured by a detection device with sufficient sensitivity such as an INTERSCAN or MIRAN gas analyzer." Within this section of the label it further states "Do not reoccupy fumigation site, i.e. building, ship, vehicle or chamber, nor move vehicle until aeration is complete."

If you wish to discuss this matter further, please call us.

Regards,

A handwritten signature in black ink that reads "Shannon Bass".

Shannon Bass  
EH&S Global Product Leader  
(317) 337-4983

Prepared by:

A handwritten signature in black ink that reads "Stacey Fruits".

Stacey Fruits  
Product Stewardship Administrator  
(317) 337-4577

\*Trademark of Dow AgroSciences

# Voluntary Industry Reporting Form for 6(a)(2) Adverse Effects Incident Information

Provide all known, required information. If required data field information is unknown, designate as such in appropriate area. Page# 1 of 3

Row 1	Reporter Name	Submission date.	Contact person (if different than reporter)	Internal ID 1-6211432
Administrative Data	[Redacted]		[Redacted]	
	Address		Address	
	[Redacted]		[Redacted]	
	Phone #		Phone #	
	Incident Status:  New	Location and date of incident <b>San Diego California</b> <b>10/20/02</b>	Date registrant became aware of incident. <b>10/21/02</b>	Was incident part of larger study? No
Row 2	EPA Registration # (Product 1)	EPA Registration # (Product 2)	EPA Registration # (Product 3)	
Pesticide(s) Involved	62719-4			
	A.I. (s)	A.I. (s)	A.I. (s)	
	Sulfuryl Fluoride			
	Product 1 name	Product 2 Name	Product 3 Name	
	Vikane			
	Exposed to concentrate prior to dilution? Did not query	Exposed to concentrate prior to dilution?	Exposed to concentrate prior to dilution?	
	Formulation	Formulation	Formulation	
Row 3	Evidence label directions were not followed? No	Incident site: (examples include home, yard, school, industrial, nursery/greenhouse, surface water, commercial turf, building/office, forest/ woods, agricultural (specify crop) right-of-way (rail, utility, highway)).  Own Residence	Situation (act of using product): (examples include mixing/loading, reentry, application, transportation, repair/ maintenance of application equipment, manufacturing/ formulating).  Re-entry	
Incident Circumstances	Intentional misuse? No			
	Applicator certified PCO? Not applicable			
	How exposed: (examples include direct contact with treated surface, ingestion, spill, drift, runoff)			
	See Incident Description			

DERBI: 105579 / SC #  
Report: Yes / No #  
If no, why:   
Date: 10/31/02

Brief description of incident circumstances.

*10/21/02 12:11:13 PM product numbers n/a  
Caller's house was tented 2 or 3 d ago. Caller re-entered residence last night. A couple of hrs. later c/o tightness in head, 'feels out of it, ringing in ears', dizziness, couldn't concentrate/ was confused'. Left residence when sxs. occurred and spent the night at a motel. ASX. this AM. Caller states that according to PCO conc. was 2-3 ppm when residence was cleared for re-entry. His wife doesn't have sxs.*

*Rec:*

*Discussed tox profile of product. 5 ppm is the established level to which people, including infants, elderly etc., may be exposed. 5 ppm is well below exposure concentrations required to produce adverse effects. Sxs. as described not typically expected. See MD for eval. CB PRN.  
Notified client liaison JG by e-mail.*

# Voluntary Industry Reporting Form for 6(a)(2) Incident Information Involving Humans

Provide all known, required information. If required data field information is unknown, designate as such in appropriate area. Page# 3 of 3

Demographic information: Age: <b>50 Years</b> Sex: <b>Male</b> Occupation (if relevant)	Exposure route: <b>Unknown</b>	Was adverse effect result of suicide/homicide or attempted suicide/homicide? <b>No</b>	Was protective clothing worn (specify)?  <b>Not applicable</b>
If female, pregnant? <b>DNQ</b>	Was exposure occupational? <b>No</b> If yes, days lost due to illness:	Time between exposure and onset of symptoms: <b>See Symptoms</b>	
Type of medical care sought: (examples include none, clinic, hospital emergency department, private physician, PCC, hospital inpatient). <b>On-site</b>	List signs/symptoms/adverse effects  <b>Malaise - 3 hrs or less , ear ringing 3 hrs or less Confusion - 3 hrs or less , Dizziness/vertigo - 3 hrs or less , Headache - 3 hrs or less ,</b>		If lab tests were performed, list test names and results (If available, submit reports)
Exposure data: Amount of pesticide: Exposure duration: Weight:			
Human severity category: <b>HC</b>			

This box can be used to provide any explanatory or qualifying information surrounding the incident. (add additional pages if necessary)

**Reported symptoms are not consistent with the irritant effects typically reported if residual chloropicrin is left in the home, nor are they suggestive of Vikane exposure. Re-entry into a treated dwelling is not permitted until Vikane levels drop below 5 ppm, a level known to be well below the threshold for potential toxicity.**

Internal ID #  
**1-6211432**

Dow AgroSciences LLC  
9330 Zionsville Road  
Indianapolis, IN 46268-1054

- 017

308 Building/2A  
November 15, 2002



Document Processing Desk - 6(a)(2)  
Office of Pesticide Programs - 7504C  
U.S. Environmental Protection Agency  
Ariel Rios Building  
1200 Pennsylvania Avenue, NW  
Washington, DC 20460-0001

RE: FIFRA § 6(a)(2) Report  
Vikane\* Gas Fumigant  
EPA Registration Number: 62719-4  
Active Ingredient: Sulfuryl Fluoride  
CAS Registry Number: 002699-79-8  
DERBI Number: 105514  
State: CA  
Severity Category: N/A - Information Only

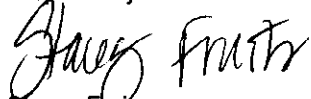
Dow AgroSciences received the following information regarding a fire at a structure that was being fumigated with Vikane. We are submitting this incident for information only. In response to its understanding of the U.S. Environmental Protection Agency's interpretation of FIFRA § 6(a)(2), Dow AgroSciences does not believe Vikane was the cause of the fire. No injuries or exposures were involved.

If you wish to discuss this matter further, please call us.

Regards,

  
Shannon Bass  
EH&S Global Product Leader  
(317) 337-4983

Prepared by:

  
Stacey Fruits  
Product Stewardship Administrator  
(317) 337-4577

\*Trademark of Dow AgroSciences

**Caller Information**

Incident Report Number: 10082002-3600  
Responder Name: T.Kob Jr.  
Responder Number: 21  
Incident Date: 10/8/2002  
Incident Time: 2:30:00 AM  
Time Zone: EDT Eastern Daylight Saving Time  
Client Name: DOW AGROSCIENCES  
Caller Name: ALICIA SCHEIDEMARTEL  
Caller Title: TERMITE SPECIALIST  
Caller Phone: [REDACTED]  
Caller Fax: ( ) -  
Caller Organization: HYDREX PEST CONTROL  
Caller Location: BAKERSFIELD, CA

Incident Location: [REDACTED]  
 HOME OWNED BY [REDACTED] LOCATED AT [REDACTED]

Victim's Name: N/A

Signs/Symptoms: -

**Material Information**

Manufacturer: DAS  
Trade Name: VIKANE  
ProductCode: N/A  
  
ShipperName:  
Shipper Location:  
Was Shipper Notified: YES  
Contact Name:  
Shipment Date: 10/8/2002  
Carrier Name:  
PRO Number:  
Trailer Number:  
Consignee Name:  
Consignee Location:  
NRC Report Required?: NO  
NRC Notification Time: 12:00:00 AM  
DOT 5800.1 Required?: NO  
Was fire Department Notified: NO

Sending  
 letter to  
 the Agency

DERBI: 105514  
 Report: Yes ☒ No ☒  
 If no, why? ☒   
 Date: 10/10/02

**Incident Description**

CALLER STATED THAT THEIR COMPANY HAD TENTED A HOUSE WITH VIKANE GAS AND WHILE THE HOUSE WAS TENTED, IT CAUGHT FIRE. CALLER ADVISED THAT THE COUSE OF THE FIRE HAS NOT YET BEEN DETERMINED. CALLER ADVISED THAT THE HOUSE HAD BEEN TENTED AT APPRX. 13:00 ON 10-01-2002. CALLER STATED THAT "ATF" IS ALSO ON SCENE. CALLER ADVISED THAT THEY HAVE THE MSDS AND HAVE PROVIDED CHEMICAL INFORMATION ALREADY TO THE LOCAL F.D. AUTHORITIES. CALLER DOES NOT NEED ANY ASSISTANCE AT THIS TIME. CALLER WAS CALLING TO REPORT THE INCIDENT.

**Response Information****First Aid:**

NONE NEEDED. NO INJURIES OR EXPOSURES INVOLVED.

**Remediation:**

NA

**Comments:**

VERBAL NOTIFICATION MADE TO TERRY WOLAK @ 09:45... INCIDENT REPORT E-MAILED TO DAS FOR NOTIFICATION...

Dow AgroSciences LLC  
9330 Zionsville Road  
Indianapolis, IN 46268-1054

- 018

308 Building/2A  
November 15, 2002



Document Processing Desk - 6(a)(2)  
Office of Pesticide Programs - 7504C  
U.S. Environmental Protection Agency  
Ariel Rios Building  
1200 Pennsylvania Avenue, NW  
Washington, DC 20460-0001

RE: FIFRA § 6(a)(2) Report  
Vikane\* Gas Fumigant  
EPA Registration Number: 62719-4  
Active Ingredient: Sulfuryl Fluoride  
CAS Registry Number: 002699-79-8  
DERBI Number: 105534  
State: CA  
Severity Category: N/A - Information Only

Dow AgroSciences received the following information regarding an explosion of a house that was being fumigated with Vikane. We are submitting this incident for information only. In response to its understanding of the U.S. Environmental Protection Agency's interpretation of FIFRA § 6(a)(2), Dow AgroSciences does not believe Vikane was the cause of the explosion.

If you wish to discuss this matter further, please call us.

Regards,

A handwritten signature in cursive script, appearing to read "Shannon Bass".

Shannon Bass  
EH&S Global Product Leader  
(317) 337-4983

Prepared by:

A handwritten signature in cursive script, appearing to read "Stacey Eruits".

Stacey Eruits  
Product Stewardship Administrator  
(317) 337-4577

\*Trademark of Dow AgroSciences

## Background Statement

### 8.14.02

## Torrance, CA Residential Explosion

On Tuesday, August 13, 2002 media nationwide reported an explosion of a residence in Torrance, Calif. that was undergoing a fumigation using Vikane\* gas fumigant manufactured by Dow AgroSciences. The cause of the explosion is under investigation; Dow AgroSciences is fully cooperating with authorities.

Neither sulfuryl fluoride, the active ingredient in Vikane, nor chloropicrin, a warning agent used with Vikane, are flammable or combustible. Vikane has been used for more than 40 years to fumigate structures for drywood termites and other wood destroying insects in more than 100,000 homes annually.

For more information please contact your Dow AgroSciences' representative or Tim Maniscalco (317) 337-4359, [tmmaniscalco@dow.com](mailto:tmmaniscalco@dow.com).

Sending  
to agency  
FBI

DERBI: 105534 SC: N/A  
Report: Yes ☒ No ☐  
Date: 8/13/02  
Pro why: did not cause explosion  
65

---

\*Trademark of Dow AgroSciences LLC

- 020

308 Building/2A  
November 15, 2002



Document Processing Desk - 6(a)(2)  
Office of Pesticide Programs - 7504C  
U.S. Environmental Protection Agency  
Ariel Rios Building  
1200 Pennsylvania Avenue, NW  
Washington, DC 20460-0001

RE: FIFRA § 6(a)(2) Report  
Vikane\* Gas Fumigant  
EPA Registration Number: 62719-4  
Active Ingredient: Sulfuryl Fluoride  
CAS Registry Number: 002699-79-8  
DERBI Number: 105577  
State: FL  
Severity Category: H-C

Dow AgroSciences submits the following information in response to its understanding of the U.S. Environmental Protection Agency's interpretation of FIFRA § 6(a)(2). However, Dow AgroSciences has not concluded that this information regards an "unreasonable adverse effect on the environment" or that it is reportable under FIFRA § 6(a)(2).

Dow AgroSciences received the enclosed information regarding alleged human exposure.

It is important to note that the Vikane Gas Fumigant label requires the introduction of chloropicrin to the structure prior to fumigation at a rate of one ounce per 10,000-15,000 feet (17-25 ppm) to serve as a warning agent. This warning agent causes smarting of eyes, tearing, throat and nose irritation, and a disagreeable pungent odor at very low concentrations (ca. 0.3 ppm).

The Vikane Gas Fumigant label states the following: "When fumigating, observe local, state and federal rules and regulations including such things as use of chloropicrin, clearing devices, positive-pressure self contained breathing apparatus, security requirements, and placement of warning signs:... Extremely Hazardous Liquid and Vapor Under Pressure, Inhalation of Vapors may be Fatal." Under the "Preparation for Fumigation" section of the label, the use directions for structural fumigation state "Remove from the structure to be fumigated all persons, domestic animals, pets - including fish and desirable growing plants." Also, under the Aeration and Reentry section of the label, use directions state "... treated area must be aerated until the level of sulfuryl fluoride is 5 ppm or less, as measured by a detection device with sufficient sensitivity such as an INTERSCAN or MIRAN gas analyzer." Within this section of the label it further states "Do not reoccupy fumigation site, i.e. building, ship, vehicle or chamber, nor move vehicle until aeration is complete."

If you wish to discuss this matter further, please call us.

Regards,

A handwritten signature in cursive script, appearing to read "Shannon Bass".

Shannon Bass  
EH&S Global Product Leader  
(317) 337-4983

Prepared by:

A handwritten signature in cursive script, appearing to read "Stacey Fruits".

Stacey Fruits  
Product Stewardship Administrator  
(317) 337-4577

\*Trademark of Dow AgroSciences

# Voluntary Industry Reporting Form for 6(a)(2) Adverse Effects Incident Information

Provide all known, required information. If required data field information is unknown, designate as such in appropriate area. Page# 1 of 3

\*Personal privacy\*

Row 1	Reporter Name	Submission date.	Contact person (if different than reporter)	Internal ID 1-6152101
Administrative Data	[Redacted]			
	Address <i>Lake Worth Florida</i>		Address	
	Phone # [Redacted]		Phone #	
	Incident Status: <i>New</i>	Location and date of incident <i>Lake Worth Florida 10/10/02</i>	Date registrant became aware of incident. <i>10/15/02</i>	Was incident part of larger study? <i>No</i>
Row 2	EPA Registration # (Product 1) <i>62719-4</i>	EPA Registration # (Product 2)	EPA Registration # (Product 3)	
Pesticide(s) Involved	A.I. (s) <i>Sulfuryl Fluoride</i>	A.I. (s)	A.I. (s)	
	Product 1 name <i>Vikane</i>	Product 2 Name	Product 3 Name	
	Exposed to concentrate prior to dilution? <i>No</i>	Exposed to concentrate prior to dilution?	Exposed to concentrate prior to dilution?	
	Formulation	Formulation	Formulation	
Row 3	Evidence label directions were not followed? <i>No</i> Intentional misuse? <i>No</i>	Incident site: (examples include home, yard, school, industrial, nursery/greenhouse, surface water, commercial turf, building/office, forest/ woods, agricultural (specify crop) right-of-way (rail, utility, highway)).  <i>Own Residence</i>	Situation (act of using product): (examples include mixing/loading, reentry, application, transportation, repair/ maintenance of application equipment, manufacturing/ formulating).  <i>Re-entry</i>	
Incident Circumstances	Applicator certified PCO? <i>Not applicable</i>			
	How exposed: (examples include direct contact with treated surface, ingestion, spill, drift, runoff)  <i>See Incident Description</i>			

DERBI: 105577 / SC #  
Report: Yes ☒ No ☐  
If no, why: \_\_\_\_\_  
Date: *10/24/02*

Brief description of incident circumstances.

*10/15/02 1:49:34 PM Caller states product was used last week tues. Cleared for reentry on Wed. She did not enter until Thurs for a few minutes. Says when she entered her eyes and tongue were irritated. Says that she went outside and this cleared up. Says she then went in the home Friday after work. Says she started to wash cabinets and other areas down with soap and water. Says she acquired some hives on her arms from where her gloves stop to her elbow area. Says this has also cleared but had many questions about further problems and what the reaction was to. At this point she has minor eye irritation from being in the home.*

*A: Explained how residual chloropicrin may sometimes lead to irritating effects of mucosal membranes. Such exposure to chloropicrin residues is not typically associated with the development of hives. When homes are prepared for fumigation, there are many potential allergens (molds, dusts, etc.) that are introduced into the environment. Should consider having someone come in and clean for her if she is having a reaction when she cleans. Should also leave area as has been done if she has irritations. Will close case*

# Voluntary Industry Reporting Form for 6(a)(2) Incident Information Involving Humans

Provide all known, required information. If required data field information is unknown, designate as such in appropriate area. Page# 3 of 3

Demographic information: Age: <i>Unknown Adult (18-64)</i> Sex: <i>Female</i> Occupation (if relevant)	Exposure route: <i>Unknown</i>	Was adverse effect result of suicide/homicide or attempted suicide/homicide? <i>No</i>	Was protective clothing worn (specify)?  <i>Not applicable</i>
If female, pregnant? <i>DNQ</i>	Was exposure occupational? <i>No</i> If yes, days lost due to illness:	Time between exposure and onset of symptoms: <i>See Symptoms</i>	
Type of medical care sought: (examples include none, clinic, hospital emergency department, private physician, PCC, hospital inpatient). <i>On-site</i>	List signs/symptoms/adverse effects  <i>Ocular Irritation/pain - 15 min or less , Hives/Welts - 15 min or less , Oral Irritation - 15 min or less ,</i>		If lab tests were performed, list test names and results (If available, submit reports)
Exposure data: Amount of pesticide: Exposure duration: Weight:			
Human severity category: <i>HC</i>			

This box can be used to provide any explanatory or qualifying information surrounding the incident. (add additional pages if necessary)

*Re-entry into a treated dwelling is not permitted until Vikane levels drop below 5 ppm, a level known to be well below the threshold for potential toxicity. Chloropicrin, a lacrimating warning agent, is also used with Vikane and may produce eye irritation and upper respiratory irritation. Chloropicrin would typically have dissipated by the time the tenants returned to the residence.*

Internal ID #  
*1-6152101*